

## BIRD RINGING REPORT 1967-1968

By

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### INTRODUCTION

This report covers the period 1st July 1967 to 30th June 1968. The number of birds ringed is higher than ever before, unfortunately it is doubtful whether this upward trend can be maintained. One of the most prolific ringers, Dr. D. J. Pearson, left East Africa in June 1968 and his contribution will be missed greatly, although it is probable that some other experienced ringers will be coming out from England towards the end of 1968.

Ringling has continued to be centred around Kampala, Nakuru and Nairobi, with smaller amounts in Masindi, the Queen Elizabeth National Park, Kisumu and southern Tanzania. The number of ringers operating in the three countries is still very small indeed and, considering this, the amount of ringling done is highly satisfactory.

The full list of birds ringed is given in Table 1; birds which are palearctic migrants are printed in bold type, others which are included in the palearctic fauna but which are also ethiopian are not so distinguished. The order is that of Mackworth-Praed & Grant and their numbers are given before the English names, the nomenclature follows these authors for the African species, whereas Vaurie is used for the palearctic birds.

### SOME NOTES ON RINGING IN EAST AFRICA

In the report on the previous season's activities (Backhurst 1968) I was able to mention only five ringers working in the whole of East Africa; this season the number rose to sixteen. Dr. D. J. Pearson, who left in June 1968, ringed over 2,000 birds, all but 97 of them being palearctic migrants. He ringed most of the waders, warblers, swallows and shrikes—the waders at Lake Nakuru, the others around Kampala. D. J. M. Caffyn ringed a few Yellow Wagtails at Thika, while W. P. Langridge ringed exactly 300 at Kisumu. A. R. E. Sinclair ringed all the Little Swifts as part of a research programme in the Serengeti. R. J. Wheeler, Chief Game Warden in Murchison Falls National Park, ringed a few migrants and expects to ring many more next season. R. Douthewaite also ringed a few birds in Uganda as part of one of his research programmes. F. J. Thompson at Masindi, Uganda, ringed a number of birds including Redstarts—the first to be ringed in East Africa.

A. D. Forbes-Watson, working in Liberia, ringed six Yellow Wagtails with Nairobi rings and hopes to ring many more migrants in the autumn of 1968. D. A. Turner ringed a number of migrants in Kenya and Uganda and will continue to ring next season.

Mrs. A. L. Campbell, Dr. E. D. Steel, my wife and I worked mainly in the Nairobi area, either independently or together where 2,001 Yellow Wagtails were caught at Kabete, 1,093 at Eastleigh Sewage Works and 493 at Kariobangi Sewage Works. All but seven of the wagtails caught at Kabete were netted as they came in to roost in Napier Grass, *Pennisetum purpureum* Schumach. This year there were seldom suitable congregations of wagtails in the fields at Kabete to make the previous season's catching method practicable (Backhurst, *loc. cit.*), nevertheless, the roost provided over three times the previous season's total. Netting was successful on 59 nights with four catches over one hundred (maximum 122), the average catch was 33.8 Yellow Wagtails per night; in addition small numbers of other species, notably Olivaceous Warblers, were caught at the roost.

Very few sites have been found where large numbers of migrants can be caught. Passerines have only been worthwhile around Kampala, Kisumu and Nairobi.

Lake Nakuru has proved to be an excellent wader site, but so far the Coast, despite vast numbers of birds present, has proved unfruitful: J. R. Stjernstalt, working at Mtwara, southern Tanzania, lost all his nets and rings to a sudden tidal wave; the writer tried netting at Gazi, southern Kenya coast in October 1967, but only managed to ring six birds. It seems that, in contrast with the conditions in England, waders on the East African coast have a wide choice of high-water resting places so that, once disturbed by netting activities, they can easily move elsewhere.

## ACKNOWLEDGEMENTS

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Sincere thanks are also due to the following willing helpers, most of whom made ringing much easier at the sewage works and at Kabete: Miss P. Allen, Miss H. Anderson, L. C. and Mrs. R. L. Backhurst, W. Bruce, H. Buck, A. Bygrave, K. Campbell, Miss B. Debbenham, M. D. Ford, J. R. Hudson, Mrs. J. Hyland, A. n Igles, Miss H. Irwin, L. Joyner, E. Lonsdale, Miss U. McCurdy, J. McGhee, T. McNett, Miss C. Parsons, J. H. Phillips, R. Segal and F. Topliff. Very special thanks go to Mr. B. T. Parsons who contributed in many ways to make the season so successful. The assistance of my wife with all the ringing and with the administrative tasks was quite invaluable.

The Society is grateful to the Director of the National Museum, Nairobi, for allowing the Museum's address to appear on the rings.

TABLE I  
BIRDS RINGED BY THE EAST AFRICA NATURAL HISTORY SOCIETY  
RINGING ORGANIZATION

Palearctic Migrants		1967/8	Grand total
4	Little Grebe <i>Podiceps ruficollis</i> (Pallas)	1	1
63	Sacred Ibis <i>Threskiornis aethiopicus</i> (Latham)	0	7
70	African Spoonbill <i>Platalea alba</i> Scopoli	0	73
72	Lesser Flamingo <i>Phoenicopterus minor</i> (Geoffroy)	0	6
77	African Pochard <i>Aythya erythrophthalma</i> (Wied)	0	3
83	Yellow-billed Duck <i>Anas undulata</i> Dubois	0	31
88	Garganey <i>A. querquedula</i> Linnaeus	0	1
89	Cape Wigeon <i>A. capensis</i> Gmelin	16	20
90	Hottentot Teal <i>A. punctata</i> Burchell	4	34
91	Red-billed Duck <i>A. erythrorhyncha</i> Gmelin	0	43
211	Quail <i>Coturnix coturnix africana</i> Temminck & Schlegel	0	1
242	Red-knobbed Coot <i>Fulica cristata</i> Gmelin	0	15
266	Ringed Plover <i>Charadrius hiaticula</i> Linnaeus	38	42
267	Little Ringed Plover <i>Ch. dubius</i> Scopoli	7	7
270	Chestnut-banded Sand Plover <i>Ch. venustus</i> Fischer & Reichenow	0	100
271	Kittlitz's Sand Plover <i>Ch. pecuarius</i> Temminck	92	106
272	Three-banded Plover <i>Ch. tricollaris</i> Vieillot	3	4
274	Mongolian Sand Plover <i>Ch. mongolus</i> Pallas	1	2
275	Great Sand Plover <i>Ch. leschenaultii</i> Lesson	2	4
286	Spurwing Plover <i>Hoplopterus spinosus</i> (Linnaeus)	4	5
287	Blacksmith Plover <i>H. armatus</i> (Burchell)	39	45
295	Avocet <i>Recurvirostra avosetta</i> Linnaeus	5	6
296	Black-winged Stilt <i>Himantopus himantopus</i> (Linnaeus)	2	7
298	European Snipe <i>Gallinago gallinago</i> (Linnaeus)	1	1
300	African Snipe <i>G. nigripennis</i> (Bonaparte)	2	3
303	Curlew Sandpiper <i>Calidris ferruginea</i> Pontoppidan	52	75
305	Little Stint <i>C. minuta</i> (Liesler)	554	793

306	Temminck's Stint <i>C. temminckii</i> (Liesler)	4	5
308	Sanderling <i>C. alba</i> (Pallas)	1	1
309	Ruff <i>Philomachus pugnax</i> (Linnaeus)	366	545
311	Terek Sandpiper <i>Xenus cinereus</i> Guldenstadt	3	3
312	Common Sandpiper <i>Tringa hypoleucos</i> Linnaeus	22	30
314	Wood Sandpiper <i>T. glareola</i> Linnaeus	32	44
317	Marsh Sandpiper <i>T. stagnatilis</i> (Bechstein)	128	185
318	Greenshank <i>T. nebularia</i> (Gunnerus)	3	4
329	Violet-tipped Courser <i>Rhinoptilus chalcopterus</i> (Temminck)	1	1
335	Crab Plover <i>Dromas ardeola</i> Paykull	2	2
349	Gull-billed Tern <i>Gelochelidon nilotica</i> (Gmelin)	3	3
361	White-winged Black Tern <i>Chlidonias leucoptera</i> (Temminck)	89	89
394	Tambourine Dove <i>Tympanistria tympanistria</i> (Temminck & Knip)	0	5
397	Emerald-spotted Wood-Dove <i>Turtur chalcospilos</i> (Wagler)	0	2
471	Pigmy Kingfisher <i>Ispidina picta</i> (Boddaert)	0	4
517	Hoopoe <i>Upupa epops epops</i> Linnaeus	1	1
560	Gabon Nightjar <i>Caprimulgus fossii</i> Hartlaub	1	1
586	Grey-throated Barbet <i>Gymnobucco bonapartei</i> Hartlaub	0	1
597	Golden-rumped Tinker Bird <i>Pogonolus bilineatus</i> (Sundevall)	0	4
604	Yellow-billed Barbet <i>Trachylaemus purpuratus</i> (Verreaux)	0	2
616	Buff-spotted Woodpecker <i>Campethera nivosa</i> (Swainson)	0	1
630	Grey Woodpecker <i>Mesopicus goertae</i> (Muller)	2	2
643	Little Swift <i>Apus affinis</i> (Gray)	161	162
691	African Pied Wagtail <i>Motacilla aguimp</i> Dumont	3	9
694	Grey Wagtail <i>M. cinerea</i> Tunstall	0	1
—	Yellow Wagtail <i>M. flava</i> Linnaeus	4,034	7,721
708	Tree Pipit <i>Anthus trivialis</i> (Linnaeus)	11	80
713	Red-throated Pipit <i>A. cervinus</i> (Pallas)	3	14
735	Brown Illadopsis <i>Trichastoma fulvescens</i> (Cassin)	0	7
736	Pale-breasted Illadopsis <i>T. rufipennis</i> (Sharpe)	0	13
737	Scaly-breasted Illadopsis <i>T. albipectus</i> (Reichenow)	0	21
738	Mountain Illadopsis <i>T. pyrropterus</i> (Reichenow & Neumann)	0	1
740	Abyssinian Hill-Babbler <i>Pseudocichla abyssinicus</i> (Ruppell)	0	3
742	Dark-capped Bulbul <i>Pycnonotus tricolor</i> (Hartlaub)	39	40
743	White-vented Bulbul <i>P. barbatus</i> (Desfontaines)	0	1
746	Bristle-bill <i>Bleda syndactyla</i> Swainson	0	7
753	Brownbul <i>Phyllastrephus terrestris</i> Swainson	0	7
754	Northern Brownbul <i>Ph. strepitans</i> (Reichenow)	0	2
757	Smaller Yellow-streaked Greenbul <i>Ph. debilis</i> (Sclater)	0	3
758	Fischer's Greenbul <i>Ph. fischeri</i> (Reichenow)	0	33
760	Toro Olive Greenbul <i>Ph. hypochloris</i> (Jackson)	0	5
765	Olive-breasted Mountain Greenbul <i>Arizelocichla tephrolaena</i> (Gray)	0	15
768	Shelley's Greenbul <i>A. masukuensis</i> (Shelley)	0	4
769	Yellow-bellied Greenbul <i>Chlorocichla flaviventris</i> (Smith)	0	4
773	Zanzibar Sombre Greenbul <i>Andropadus importunus</i> (Vieillot)	0	3
774	Cameroon Sombre Greenbul <i>A. curvirostris</i> Cassin	0	14
755	Little Greenbul <i>Eurillas virens</i> (Cassin)	2	22
776	Yellow-whiskered Greenbul <i>Stelgidocichla latirostris</i> (Strickland)	8	203
778	Spotted Flycatcher <i>Muscicapa striata</i> (Pallas)	1	3
785	Ashy Flycatcher <i>Alseonax cinereus</i> (Cassin)	0	2
796	White-eyed Slaty Flycatcher <i>Dioptronis fischeri</i> Reichenow	0	4
805	Yellow Flycatcher <i>Chloropeta natalensis</i> Smith	1	1
815	Puff-back Flycatcher <i>Batis capensis</i> (Linnaeus)	0	2
822	Wattle-eye <i>Platysteira cyanea</i> (Muller)	1	1
823	Black-throated Wattle-eye <i>P. peltata</i> Sundevall	0	8
824	Chestnut Wattle-eye <i>Dyaphorophya castanea</i> (Fraser)	0	10
825	Jameson's Wattle-eye <i>D. jamesoni</i> Sharpe	0	20
829	White-tailed Crested Flycatcher <i>Trochocercus albonotatus</i> Sharpe	0	3
831	Dusky Crested Flycatcher <i>T. nigromitratus</i> (Reichenow)	0	13
832	Paradise Flycatcher <i>Tchitrea viridis</i> (Muller)	0	1
833	Red-winged Paradise Flycatcher <i>T. suahelica</i> (Reichenow)	0	3
835	Black-headed Paradise Flycatcher <i>T. nigriceps</i> (Hartlaub)	0	1
840	African Thrush <i>Turdus pelios</i> Bonaparte	1	1
841	Olive Thrush <i>T. olivaceus</i> (Linnaeus)	0	15
845	Abyssinian Ground Thrush <i>Geokichla piaggiae</i> (Bouvier)	0	1
849	White-tailed Ant Thrush <i>Neocossyphus poensis</i> (Strickland)	0	1

850	Rock Thrush <i>Monticola saxatilis</i> (Linnaeus)	5	7
854	Wheatear <i>Oenanthe oenanthe</i> (Linnaeus)	7	10
855	Isabelline Wheatear <i>Oe. isabellina</i> (Temminck & Langier)	0	1
883	Whinchat <i>Saxicola rubetra</i> (Linnaeus)	23	36
884	White-browed Robin Chat <i>Cossypha heuglini</i> Hartlaub	0	6
887	Grey-winged Robin Chat <i>C. polioptera</i> Reichenow	0	1
889	Blue-shouldered Robin Chat <i>C. cyanocampter</i> (Bonaparte)	0	7
890	Red-capped Robin Chat <i>C. natalensis</i> Smith	0	37
892	Snowy-headed Robin Chat <i>C. niveicapilla</i> (Lafresnaye)	0	2
893	Robin Chat <i>C. caffra</i> (Linnaeus)	0	6
898	Equatorial Akalat <i>Sheppardia aequatorialis</i> (Jackson)	0	29
903	Brown-chested Alethe <i>Alethe poliocephala</i> (Bonaparte)	2	29
913	Eastern-bearded Scrub Robin <i>Erythropygia quadrivirgata</i> (Reichenow)	0	5
914	Brown-backed Scrub Robin <i>E. hartlaubi</i> Reichenow	1	1
915	White-starred Bush Robin <i>Pogonocichla stellata</i> (Vieillot)	0	12
917	Redstart <i>Phoenicurus phoenicurus</i> (Linnaeus)	5	5
921	Nightingale <i>Luscinia megarhynchos</i> Brehm	2	4
922	Sprosser <i>L. luscinia</i> (Linnaeus)	0	4
924	Whitethroat <i>Sylvia communis</i> Latham	3	9
925	Garden Warbler <i>S. borin</i> (Boddaert)	254	395
926	Blackcap <i>S. atricapilla</i> (Linnaeus)	8	26
933	Barred Warbler <i>S. nisoria</i> (Bechstein)	1	3
937	Upcher's Warbler <i>Hippolais languida</i> (Hemprich & Ehrenberg)	0	2
938	Olivaceous Warbler <i>H. pallida</i> (Hemprich & Ehrenberg)	7	14
942	Great Reed Warbler <i>Acrocephalus arundinaceus</i> (Linnaeus)	6	19
944	Reed Warbler <i>A. scirpaceus</i> (Hermann)	168	288
945	Marsh Warbler <i>A. palustris</i> (Bechstein)	6	8
946	African Reed Warbler <i>A. baeticatus</i> (Vieillot)	0	1
947	Sedge Warbler <i>A. schoenobaenus</i> (Linnaeus)	83	211
959	Willow Warbler <i>Phylloscopus trochilus</i> (Linnaeus)	90	187
964	Brown Woodland Warbler <i>Seiurus sepirostris</i> (Rüppell)	0	4
977	Black-collared Apalis <i>Apalis pulchra</i> Sharpe	0	2
993	Grey-capped Warbler <i>Eminia lepida</i> Hartlaub	0	1
1010	Olive-green Camaroptera <i>Camaroptera chloronota</i> Reichenow	0	23
1011	Grey-backed Camaroptera <i>C. brevicaudata</i> (Cretzschmar)	1	3
1030	Hunter's Cisticola <i>Cisticola hunteri</i> Shelley	0	1
1045	Tawny-flanked Prinia <i>Prinia subflava</i> (Gmelin)	1	2
1049	Banded Prinia <i>P. bairdii</i> (Cassin)	0	7
1053	Black-faced Rufous Warbler <i>Bathmocercus rufus</i> (Reichenow)	1	23
1054	Swallow <i>Hirundo rustica</i> Linnaeus	218	781
1055	Uganda Swallow <i>H. angolensis</i> Bocage	0	4
1062	Red-rumped Swallow <i>H. daurica</i> Linnaeus	0	1
1068	Sand Martin <i>Riparia riparia</i> (Linnaeus)	26	754
1069	African Sand Martin <i>R. paludicola</i> (Vieillot)	0	2
1074	House Martin <i>Delichon urbica</i> (Linnaeus)	0	1
1089	Square-tailed Drongo <i>Dicurus ludwigii</i> (Smith)	0	1
1103	Lesser Grey Shrike <i>Lanius minor</i> Gmelin	2	2
1112	Red-backed Shrike <i>L. collurio</i> Linnaeus	50	76
1125	Tropical Boubou <i>Laniarius aethiopicus</i> (Gmelin)	0	7
1128	Black-backed Puff-back Shrike <i>Dryoscopus cubla</i> (Shaw)	1	1
1164	Golden Oriole <i>Oriolus oriolus</i> (Linnaeus)	0	1
1184	Violet-backed Starling <i>Cinnyricinclus leucogaster</i> (Boddaert)	0	3
1190	Lesser Blue-eared Glossy Starling <i>Lamprocolius cholopterus</i> (Swainson)	2	2
1219	Yellow White-eye <i>Zosterops senegalensis</i> Bonaparte	6	6
1221	Green White-eye <i>Z. virens</i> Sundevall	0	2
1223	Kikuyu White-eye <i>Z. kikuyuensis</i> Sharpe	0	2
1230	Bronze Sunbird <i>Nectarinia kilimensis</i> Shelley	0	1
1238	Copper Sunbird <i>Cinnyris cupreus</i> (Shaw)	1	1
1245	Mariqua Sunbird <i>C. mariquensis</i> Smith	2	2
1254	Eastern Double-collared Sunbird <i>C. mediocris</i> Shelley	2	2
1263	Scarlet-chested Sunbird <i>Chalcomitra senegalensis</i> (Linnaeus)	2	2
1266	Green-headed Sunbird <i>Cyanomitra verticalis</i> (Latham)	1	1
1269	Olive Sunbird <i>C. olivacea</i> (Smith)	0	26
1271	Collared Sunbird <i>Antheptes collaris</i> (Vieillot)	0	3
1281	Green Hylia <i>Hylia prasina</i> (Cassin)	1	5
1300	Grey-headed Sparrow <i>Passer griseus</i> (Vieillot)	2	2

1325	Yellow-backed Weaver <i>Ploceus capitalis</i> (Latham)	30	30
1335	Dark-backed Weaver <i>Symplectes bicolor</i> (Vieillot)	0	1
1337	Spectacled Weaver <i>Hyphanturgus ocularis</i> (A. Smith)	2	2
1342	Holub's Golden Weaver <i>Xanthophilus xanthops</i> (Hartlaub)	2	2
1346	Black-billed Weaver <i>Heterhyphantes melanogaster</i> (Shelley)	0	4
1347	Emin's Weaver <i>Othyphantes emini</i> (Hartlaub)	22	22
1348	Reichenow's Weaver <i>O. reichenowi</i> (Fischer)	0	8
1360	Red-billed Quelea <i>Quelea quelea</i> (Linnaeus)	1	1
1361	Red-headed Quelea <i>Q. erythropus</i> (Hartlaub)	6	6
1375	Red-collared Widowbird <i>Coliuspasser ardens</i> (Boddaert)	1	1
1380	Black and White Mannikin <i>Spermestes poensis</i> (Fraser)	1	1
1386	Grey-headed Negro-Finch <i>Nigrita canicapilla</i> (Strickland)	0	2
1389	Brown Twinspot <i>Clytospiza monteiri</i> (Hartlaub)	3	3
1391	Red-headed Blue-bill <i>Spermophaga ruficapilla</i> (Shelley)	0	14
1399	Abyssinian Crimson-wing <i>Cryptospiza salvadorii</i> Reichenow	0	2
1406	Peter's Twinspot <i>Hypargos niveoguttatus</i> (Peters)	0	1
1410	Green-winged Pytilia <i>Pytilia inelba</i> (Linnaeus)	3	3
1411	African Firefinch <i>Lagonosticta rubricata</i> (Lichtenstein)	1	1
1413	Red-billed Firefinch <i>L. senegala</i> (Linnaeus)	6	6
1422	Fawn-breasted Waxbill <i>Estrilda paludicola</i> Heuglin	6	6
1425	Black-crowned Waxbill <i>E. nonnula</i> Hartlaub	2	2
1431	Red-checked Cordon-bleu <i>Vidua macroura</i> (Linnaeus)	1	1
1433	Purple Grenadier <i>Granatina ianthinogaster</i> (Reichenow)	0	1
1441	Pin-tailed Whydah <i>Vidua macroura</i> (Pallas)	10	10
1448	Yellow-fronted Canary <i>Serinus mozambicus</i> (Müller)	3	3
1461	Streaky Seed-eater <i>S. striolatus</i> (Rüppell)	0	1
1462	Thick-billed Seed-eater <i>S. burtoni</i> (Gray)	0	1
	TOTAL	6,836	14,112
	TOTAL PALEARCTIC MIGRANTS	6,320	12,498
	TOTAL NUMBER OF SPECIES	95	186
	TOTAL PALEARCTIC SPECIES	41	48

TABLE 2

## RECOVERIES AND CONTROLS OF BIRDS RINGED IN EAST AFRICA

## Key to symbols and terms

Ring number: where this is in italics the ring has been returned.

Age : f.g. — full grown, age uncertain.  
 ad. — adult, at least one year old.  
 pull. — young, not yet able to fly.  
 juv. — juvenile.  
 1st W. — 1st winter.

Sex : ♂ — male.  
 ♀ — female.

Manner of

recovery: + — shot or killed by man.  
 × — found dead or dying.  
 [?/] — manner of recovery unknown.  
 v — caught or trapped and released with ring.  
 ( ) — caught or trapped alive and not released, or released but with ring removed.

A recovery in the strict sense is a ringed bird found dead, whether by the ringer himself or reported by a member of the public; a control is a bird ringed by one ringer and retrapped by another, or a bird retrapped by the original ringer at a point more than three miles from the locality where it was first ringed.

Red Knobbed Coot *Fulica cristata*

D.0587 ? 6.4.65 Ngorongoro Crater, Tanzania. 3°12'S., 35°30'E. JG  
 + 16.12.67 Lessos Dam, Kenya. 0°12'N., 36°16'E.

Little Ringed Plover *Charadrius dubius*

A.3194 1st W. 14.12.67 Lake Nakuru, Kenya. 0°20'S., 36°06'E. DJP  
 × 26.5.68 near Sukhumi, Georgian SSR, U.S.S.R. 43°00'N., 41°01'E.

Ruff <i>Philomachus pugnax</i>			
C.0466	f.g. ♂ +	25.3.68 17.5.68	Lake Nakuru, Kenya. DJP Tyumen Region, 200 km. NE of Surgut, U.S.S.R. 62°50'N., 73°00'E.
B.0900	f.g. ♀ +	6.4.68 31.5.68	Lake Nakuru, Kenya. GCB Krasnoyarsk Region, near Pirovskoe, U.S.S.R. 57°38'N., 92°15'E
Yellow Wagtail <i>Motacilla flava</i>			
J. 4065	f.g. × (cat)	1.12.66 25.7.67	Kabete, Kenya. 1°16'S., 36°43'E. GCB. near Oktyabr'sky District, Tatarskaya A.S.S.R., U.S.S.R. 54°24'N., 50°47'E.
J. 14759	f.g. /?	10.2.68 24.4.68	Kabete (at roost). EDS near Astrakhan, Kalmytskaya A.S.S.R., U.S.S.R. 46°24'N., 48°02'E.
J. 4409	f.g. v.	20.12.66 21.10.67	Kabete. GCB Eastleigh. 1°16'S., 36°51'E 10 miles ESE.
J. 4440	Ad. ♂ v.	7.1.67 10.12.67	Eastleigh. GCB ( <i>M.f. lutea</i> ). Kariobangi. 1°15'S., 36°53'E. 3 miles ENE.
J. 5026	f.g. v.	14.1.67 12.11.67	Eastleigh. GCB Kariobangi. 3 miles ENE.
J. 8085	f.g. v.	30.3.67 17.12.67	Eastleigh. JBS Kariobangi. 3 miles ENE.
J. 8390	Ad. ♂ v.	8.10.67 12.1.68	Eastleigh. GCB ( <i>M.f. flava</i> ). Kabete. 10½ miles WNW.
J. 8705	f.g. v.	5.11.67 12.11.67	Eastleigh. GCB Kariobangi. 3 miles ENE.
J. 8759	f.g. v.	12.11.67 25.11.67	Kariobangi. GCB Eastleigh. 3 miles WSW.
J. 8994	f.g. v.	1.12.67 27.1.68	Kariobangi. GCB Kabete. 12½ miles W.
J. 12503	f.g. v.	27.12.67 14.1.68	Dandora Swamp. 1°16'S., 37°00'E. DAT Kabete. c.15½ miles W.
J. 12450	Ad. ♂ v.	29.12.67 23.3.68	Kabete. GCB ( <i>M.f. flava</i> ). Eastleigh. 8 miles ESE.
J. 11801	f.g. v.	6.1.68 21.1.68	Eastleigh. LC Kariobangi. 3 miles ENE.
J. 4466	Ad. ♂ v.	7.1.68 10.12.67	Eastleigh. GCB ( <i>M.f. flava</i> ) Kariobangi. 3 miles ENE.

In addition the ringing details of the following bird, recovered in the year 1966-67, have been received:

Red Knobbed Coot <i>Fulica cristata</i>			
D.0503	?	6.4.65	Ngorongoro Crater, Tanzania. JG
	+	16.1.67	East side of Lake Naivasha, Kenya. 0°45'S., 36°23'E.

#### RETRAPS

A retrap is a ringed bird captured and released by the original ringer, or his associates, at or near (within three miles) the locality where it was originally ringed (Spencer, 1965).

An encouraging number of birds have been retrapped from previous seasons; in the last report (Backhurst, 1968) there were only seven such retraps, this year there were 116 including four which are listed in Table 2 as controls. The explanation of this high number is twofold: the number of birds ringed in the 1966/67 season was higher than ever before, i.e. there were far more birds available for retrapping in 1967/68; it is also clear that many birds are faithful to the same winter quarters or that they pass through the same area (where they are ringed and retrapped) on their way to more distant winter quarters.

TABLE 3  
BIRDS RETRAPPED FROM PREVIOUS SEASONS

Little Stint <i>Calidris minuta</i>	.	.	.	.	.	.	.	.	.	5
Ruff <i>Philomachus pugnax</i>	.	.	.	.	.	.	.	.	.	3
Marsh Sandpiper <i>Tringa stagnatilis</i>	.	.	.	.	.	.	.	.	.	1
Yellow Wagtail <i>Motacilla flava</i>	.	.	.	.	.	.	.	.	.	75
Whinchat <i>Saxicola rubetra</i>	.	.	.	.	.	.	.	.	.	1
Garden Warbler <i>Sylvia borin</i>	.	.	.	.	.	.	.	.	.	5
Great Reed Warbler <i>Acrocephalus arundinaceus</i>	.	.	.	.	.	.	.	.	.	3
Reed Warbler <i>A. scirpaceus</i>	.	.	.	.	.	.	.	.	.	14
Sedge Warbler <i>A. schoenobaenus</i>	.	.	.	.	.	.	.	.	.	9

Apart from the following exceptions all the above were ringed in the 1966/67 season:

Yellow Wagtail <i>Motacilla flava</i>				
A. 0279	f.g.	15.161	Eastleigh.	EJB
	v.	7.10.67	ditto.	
Garden Warbler <i>Sylvia borin</i>				
J. 1426	f.g.	31.3.66	Gala, Uganda.	1°18'N., 31°49'E. DJ
	v.	18.12.66	ditto.	
	v.	6.4.67	ditto.	
	v.	12.11.67	ditto.	
Reed Warbler <i>Acrocephalus scirpaceus</i>				
J. 1406	f.g.	18.3.66	Gala.	DJP
	v.	31.3.66	ditto.	
	v.	19.1.68	ditto.	
J. 1414	f.g.	23.3.66	Gala.	DJP
	v.	13.2.68	ditto.	
Sedge Warbler <i>A. schoenobaenus</i>				
J. 1401	f.g.	18.3.66	Gala.	DJP
	v.	25.2.67	ditto.	
	v.	28.12.67	ditto.	

KEY TO RINGERS' INITIALS IN LIST OF RECOVERIES

GCB	G. C. Backhurst	DJP	D. J. Pearson
EJB	Miss E. J. Blencowe	JBS	J. B. Smart
LC	Mrs. L. Campbell	EDS	E. D. Steel
JG	J. Goddard	DAT	D. A. Turner

OTHER RINGERS IN EAST AFRICA

D. Caffyn	W. P. Langridge
R. Douthwaite	J. M. Locke
D. P. Ebbutt	A. Sinclair
A. D. Forbes-Watson	R. Stjernstedt
M. D. Ford	F. J. Thompson

R. J. Wheeler

TABLE 4  
RECOVERIES IN EAST AFRICA OF BIRDS RINGED ABROAD

This list contains some birds which were recovered before 1st July 1967; it is hoped eventually to bring Eggeling's (1951) list up to date by publishing foreign-ringed recoveries in these annual reports.

The signs and symbols are the same as those used in Table 2.

Cattle Egret *Bubulcus ibis*

Pretoria

635/10887	pul.	—12.62	Gumtree Dist., near Ficksburg, O.F.S., S. Africa, 28°51'S, 27°43'E.
	( )	20.6.67	Pakwach, Uganda. 2°28'N., 31°30'E.
<i>Pretoria</i> 553/3272	juv. +	13.12.57 31.3.60	Faithful Fountains, S. Africa. 33°40'S., 26°30'E. Tunduru, Tanganyika. 11°20'S., 37°20'E.
<i>Pretoria</i> C. 8698	juv. +	17.2.57 25.8.58	Westdene Pan Benoni, S. Africa. 26°12'S., 28°18'E. Ngudu, Kwimba, Tanganyika. 2°40'S., 33°30'E.

White Stork *Ciconia ciconia*

Pretoria

C. 1010	juv. +	3.12.61 25.3.62	Bredasdorp, S. Africa. 34°35'S., 20°00'E. Tunduma, Tanganyika. 9°00'S., 33°00'E.
<i>Hiddensee</i> 200 785	juv. +	7.7.64 25.3.65	Bleyen, Seelow, Frankfurt/Oder, East Germany. 52°35'N., 14°37'E. Aboki, near Lira, Lango Dist., Uganda. 2°22'N., 32°42'E.
<i>Hiddensee</i> 3 569	juv. +	13.7.66 19.1.67	Fienerode, Genthin, Magdeburg, East Germany. 52°21'N., 12°10'E. West Kilimanjaro, Tanganyika. c.3°S., 37°20'E.
<i>Hiddensee</i> 3 559	juv. +	10.7.66 0.5.67	Zitz, Brandenburg, Potsdam, East Germany. 52°20'N., 12°20'E. Acholi District, Uganda. c.3°N., 32°30'E.
<i>Hiddensee</i> 3 571	juv. ×	13.7.67 27.6.67	Fienerode, Genthin, Magdeburg, East Germany. 52°21'N., 12°10'E. Kitale, Kenya. 1°N., 35°E.
<i>Hiddensee</i> 202 251	juv. +	24.6.67 17.2.68	Bendelin, Perleberg, Schwerin, East Germany. 52°55'N., 12°10'E. Ligera, Tanganyika. 10°59'S., 36°23'E.
<i>Hiddensee</i> 200 329	pull. × (predators)	24.6.64 13.3.65	near Genthin, East Germany. 52°30'N., 12°12'E. Timau, Kenya. 0°05'N., 37°14'E.
<i>Varsovia</i> B530.678	pull. ×	21.6.56 16.1.63	Zbietka, near Wagrowiec, Poland. 52°44'N., 17°18'E. Sotik, Kenya. 0°40'S., 35°08'E.
<i>Moskva</i> A. 67.216	pull. ×	28.6.61 9.2.63	near Chernigov, U.S.S.R. 51°33'N., 31°20'E. Yatta Plateau, north of Ithanga Hills, Kenya. c.1°25'S., 37°30'E.
<i>Moskva</i> B. 67.306	pull. [?]	25.6.59 15.3.60	Beloviesha Reserve, U.S.S.R. 52°40'N., 24°00'E. Seronera, Serengeti, Tanganyika. 2°16'S., 34°47'E.

Shoveler *Anas clypeata*

Moskva

E. 581.839	f.g. +	14.8.61 10.3.63	Asrakhn Reserve, U.S.S.R. 46°25'N., 49°05'E. Lake Naivasha, Kenya. 0°45'S., 36°25'E.
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African Pochard *Aythya erythrophthalma*

Pretoria

C. 5020	ad. [?]	6.12.53 —11.54	Modder East Dam, Transvaal, S. Africa. c.25°20'S., 30'E. Lake Naivasha, Kenya. 0°45'S., 36°20'E.
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Lesser Spotted Eagle *Aquila pomarina*

Tartu

15270	pull. +	—7.54 —3.55	Aegviidu District, Estonian S.S.R., U.S.S.R. c.59°16'N., 25°36'E. Geita District, Tanganyika. c.2°35'S., 32°56'E.
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Little Stint *Calidris minuta*

## Pretoria

601/44213	?	1.12.66	Blue Lagoon, Kafuc Flats, Zambia. 15°27'S., 27°24'E.
	v.	25.3.68	Lake Nakuru, Kenya. (Original ring removed, replaced by Nairobi A. 3376).
	v.	6.4.68	Lake Nakuru.

Swallow *Hirundo rustica*

## London

HH. 55.749	juv.	12.9.66	Bedworth, Nuneaton, England. (At roost) 52°29'N., 1°28'W.
	( )	5.12.66	Anaka Paromo, near Gulu, Uganda. 2°41'N., 32°27'E.

## Pretoria

601/24345	f.g.	8.4.67	Vischgewaard, S. Africa. c.26°10'S., 28°E.
	×	15.5.67	Tororo, Uganda. 0°42'N., 34°11'E.

## Pretoria

601/01716	f.g.	27.2.66	Rosherville Dam, S. Africa. c.26°S., 28°E.
	( )	15.10.67	Busia, Kenya. 0°25'N., 34°15'E.

## Pretoria

601/07278	f.g.	20.3.66	Rosherville Dam, S. Africa.
	( )	18.10.67	Tororo, Uganda.

## Pretoria

662/02868	f.g.	2.2.67	Escom Dam, Kimberley, S. Africa. 28°45'S., 24°46'E.
	v.	14.10.67	Busia, Kenya.
	v.	23.10.67	Tororo, Uganda.

## Pretoria

601/47863	f.g.	6.2.66	Rosherville Dam, S. Africa.
	( )	27.10.67	Amukura, Kenya. 0°36'N., 34°16'E.

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# A NOTE ON THE POSSIBLE REPRODUCTIVE STRUCTURES IN KENYAN *UDOTEA ORIENTALIS* A. & E. S. GEPP, (CHLOROPHYTA).

by

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## INTRODUCTION

The genus *Udotea* is pan-tropical with extra-tropical (Natal Coast) extensions. *Udotea orientalis* A. & E. S. Gepp is an Indo-Pacific species. It has been reported from Kenya (Gerloff, 1960; Isaac, 1967), Mosambique and Natal coast of South Africa (Isaac, 1956). The Siboga Expedition records include Zanibar in the Indian Ocean list; in the Pacific Ocean it has been reported from Queensland (Australia), China Sea and Japan (A. & E. S. Gepp, 1911).

*U. orientalis* is widespread along the Kenya coast but it is generally less common than *U. indica* A. & E. S. Gepp. A third species *U. flabellum* (Ell. & Soland) Howe has been recorded for the Kenya coast (Isaac, 1967), but so far has only been found in the Lamu region (personal communication). *U. orientalis* is primarily an alga of quiet or protected waters such as those to seaward of mangroves and in lagoons. It is sometimes found in more exposed situations but not so much as *U. indica*.

The morphology of *Udotea* is well known and has been fully described by Gepp (1911). There is, however, no certain information and few published records of the reproductive structures, and hence it is worthwhile recording the observations made on the Kenya material of *U. orientalis*.

## THALLUS STRUCTURE

### (a) External morphology

The thallus of *U. orientalis* consists of a well differentiated stipe and frond (fig. 1a). The stipe arises from a bulbous rhizoidal mass and may be up to 2.5 cm. long and up to 3 mm. thick. The frond is well developed, broad and cordate in shape. It varies in size according to the habitat. Generally, those growing in quiet waters are larger than those growing in disturbed waters. The frond may be up to 6.5 cm. broad and 4 cm. long. It is concentrically zoned and longitudinally striate due to moderate calcification. The margin of the frond may be entire or lacerate.

### (b) Internal structures

The frond is built up of smooth-walled coenocytic filaments which radiate from the stipe to the margin of the frond. The filaments are repeatedly dichotomously branched and show constrictions at markedly unequal distances above the points of dichotomy (fig. 1b). This is a characteristic feature of this species. The filaments vary from 24 $\mu$  to 35 $\mu$  in diameter and are packed with starch granules and chloroplasts.

## POSSIBLE REPRODUCTIVE STRUCTURES

Phillips reported a small ovoid body at the apex of one filament of Atlantic species *U. cyathiformis* Decaisne, and suggested a similarity between it and the female gametangium of *Codium* (Phillips, 1957). Phillips observed a wall at the base of the organ. The wall was thinnest in the middle, where he also observed cytoplasmic strands between the filament and the organ. He concluded that the wall was newly formed. He ruled out the possibility that this organ might be a normal growth phenomenon, with the other new filament of the dichotomy broken off, because the point

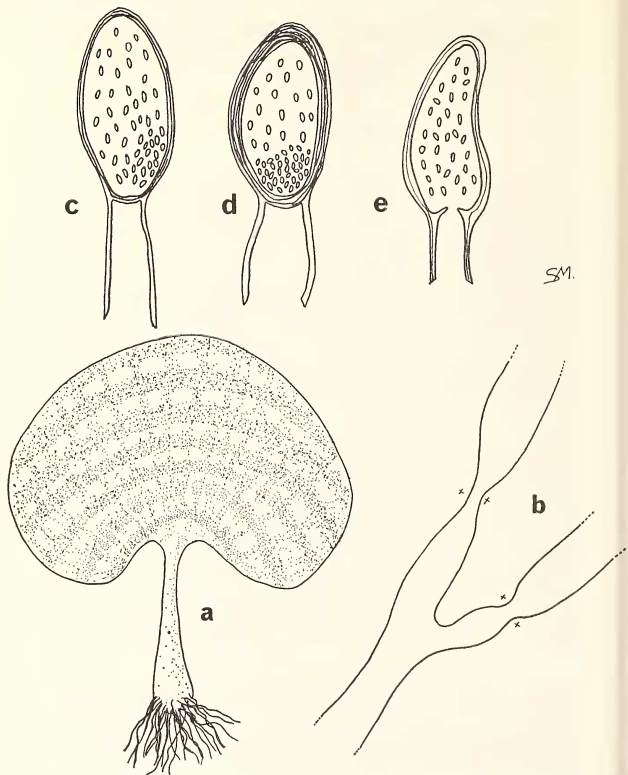


Fig. 1. *Udotea orientalis* A. & E. S. Gepp, a, whole plant (x 1); b, filament showing dichotomous branching (x 200); c, ovoid body at apex of filament (x 200); d, ovoid body showing thicker wall (x 200); e, filament with ovoid body, showing slight ingrowths of filament walls (x 200).

of constriction was above the dichotomy and no branching or trace of branching was evident. The organ was dark green and so he concluded that it was not a vegetative growth but a female gametangium.

#### POSSIBLE REPRODUCTIVE STRUCTURES IN KENYA *U. ORIENTALIS*

In October, 1967, during an algology practical class at the University College Nairobi, when the author was examining teased filaments of *U. orientalis*, she came across an ovoid body at the apex of one filament (fig. 1c).

On careful examination and comparison with Phillips' drawing of a similar structure in *U. cyathiformis*, very close similarities were observed except that the cytoplasmic strands mentioned by Phillips were not observed.

An extensive search for similar structures was carried out on herbarium and preserved material. While examining filaments of preserved material of *U. orientalis*, Isaac B. 27 and 3221 from Mokowe mud flats Lamu, Kenya, in front of mangroves, the author came across another ovoid body at the apex of a filament (fig. 1d).

The ovoid body measured 105 $\mu$  in length and the greatest width was 30 $\mu$ . The width of the filament bearing the body was 24 $\mu$ . Examination of the body under oil immersion revealed that the basal wall of the organ was complete and also that the wall surrounding the body was thicker than the filament wall. The thickness of the wall surrounding the ovoid body was 4.5 $\mu$  compared to 3 $\mu$  of the filament wall. The basal wall of the body was of the same thickness as that surrounding the body itself. Thus the organ was completely isolated from the filament and hence the body is very likely a mature gametangium. It was also observed that the basal half of the gametangium was packed densely with roundish bodies.

Phillips suggests in his paper on *U. cyathiformis* that it is probable that the basal wall of the organ arises by ingrowth of filament walls at the organ base. During the course of extensive examinations for similar ovoid shaped bodies at the apex of filaments, a body was observed with slight ingrowths of the filament walls as shown in fig. 1c. These ingrowths were visible under a phase contrast microscope. This observation is in agreement with Phillips' suggestion of the origin of the basal wall of the organ.

#### ACKNOWLEDGEMENTS

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